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CENTRAL FAX CENTERApplication Serial No. 10/623,347
Atty Docket No. 60102.0004USU2

AUG 08 2006

Remarks

In response to the Office Action mailed February 8, 2006, the Applicants respectfully request reconsideration of the pending claims based on the above amendments and the following remarks. The pending claims are believed to be in allowable condition. Claims 1, 5, 6, 7, 11 and 12 are currently pending in the application. Claims 1 and 7 have been amended. Claims 1, 5, 6, 7, 11 and 12 were rejected. Examination and reconsideration based on this Amendment and the following remarks are respectfully requested.

Claim Rejections—35 U.S.C. §112, first paragraph

Claims 1, 5, 6, 7, 11 and 12 are rejected as lacking enablement. Applicants respectfully traverse this rejection and submit that the Office Action does not present by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by independent claims 1 and 7. (See MPEP 2163.04). The specification describes the determining a best set of platform locations from the set of possible platform locations and determining if the inclusion of each one of the possible platform locations in the list causes the total set of platforms to reach more targets or the same number of targets with less total distance in paragraphs 37 through 39 of the specification.

The Office Action also does not contain express findings of fact that support a lack of written description conclusion. Express findings should establish a prima facie case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. (See MPEP 2163.04). As stated above, Applicants respectfully submit that support for the cited claim features are apparent in paragraphs 37-39 of the specification. Thus, the cited subject matter is described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected to make and/or use the invention. Based on the aforementioned discussion, it is respectfully submitted that the rejections of claims 1 and 7 under 35 U.S.C. §112, first paragraph should be

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withdrawn. It is also submitted that the rejections of claims 5, 6, 11 and 12 should be withdrawn based on their dependency on the aforementioned claims.

Claim Rejections—35 U.S.C. §103

Claims 1, 5, 6, 7, 11 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cullick et al., U. S. Patent No. 6,549,879 (hereinafter "Cullick") in view of Brunet, U. S. Patent No. 6,315,054 (hereinafter "Brunet"), and further in view of Smitherman, U.S. Patent No. 5,975,207, (hereinafter "Smitherman") and admitted prior art. Applicants respectfully submit that Cullick in view of Brunet, Smitherman, and/or admitted prior art do not make obvious amended independent claims 1 and 7.

Applicants' amended claim 1 is drawn to a computer-implemented method of generating optimized platform location sets locations for extracting hydrocarbons from underground reservoirs. The method comprises, among other features, (1) computing a maximum number of targets to be assigned for each of a user-specified number of platforms by determining the product of a user-specified number of slots and a user-specified number of targets per slot, (2) selecting a possible set of platform locations from at least one of a number of X and Y coordinates from automatically generated target locations, a user-specified number of platform locations, or a generated grid of evenly spaced platform locations. (3) validating the set of possible platform locations to determine that each possible platform location in the set is in a geographically valid area by comparing each possible platform location against a set of exclusionary polygons, (4) determining a best set of platform locations from the set of possible platform locations by an iterative process which adds each of the possible platform locations to a list comprising the user-specified number of platforms and determining if the inclusion of each one of the possible platform locations in the list causes the total set of platforms to reach more targets or the same number of targets with less total distance thereby returning locations that are most desirable, and (5) optimizing each platform location in the best set of platform locations by an iterative process which determines whether an improvement is achieved by moving each of

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the platform locations within a fraction of a platform reach in eight compass directions around a current selected best platform location.

In contrast, the Office Action acknowledges that Cullick does not expressly disclose a computer-implemented method of generating optimized platform location sets locations for extracting hydrocarbons from underground reservoirs. However, the Office Action relies on Brunet to resolve the deficiencies of Cullick stating that Brunet discloses a "computer-implemented method of generating optimized platform location sets locations for extracting hydrocarbons from underground reservoirs." (See Office Action page 5, lines 9-11). Applicants respectfully disagree and submit that Brunet does not contemplate a computer implemented method. Neither the specification nor the figures of Brunet mention a computer or implementing the mechanical subject matter of Brunet with a computer. Brunet discloses a mechanical assembly that locates lateral bores that have already been drilled. Thus, Brunet alone, or even in combination with Cullick, does not disclose amended claim 1 because Brunet only mechanically locates bores after they have been drilled and does not contemplate nor accommodate implementation with a computer. (See Brunet abstract, CL2, L 19-20, and CL 33, L 9-32).

Further, the Office Action acknowledges that Cullick does not disclose (1) computing a maximum number of targets to be assigned for each of a user-specified number of platforms by determining the product of a user-specified number of slots and a user-specified number of targets per slot but relies on Smitherman to cure the deficiencies of Cullick. Smitherman discloses a non-computer implemented method and apparatus for handling drill pipe in a deviated well. Thus, Smitherman does not contemplate computing a maximum number of targets by determining the product of a user specified number of slots and targets per slot. There is no indication in Smitherman that the number of wells per platform is a computed maximum number determined by a product. (See Smitherman abstract, CL1, L37-40). Thus, amended claim 1 is allowable over Smitherman alone or in combination with Cullick.

Still further, the Office Action acknowledges that Cullick does not expressly disclose (2) selecting a possible set of platform locations from at least one of a number of X and Y coordinates from automatically generated target locations, a user-specified number of platform

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locations, or a generated grid of evenly spaced platform locations but relies on Brunet to resolve this deficiency. The Applicants respectfully disagree with this interpretation of Brunet. As noted in the Office Action, one of the goals of Brunet is to reduce the number of platform locations (Col. 2, lines 19-20 and Fig. 4). Brunet teaches that this may be accomplished by creating a junction in a wellbore (i.e., below the surface) (Col. 13, lines 45-54). Moreover, Brunet fails to teach, disclose, or suggest determining additional surface platform locations to add to a set of surface platform locations as recited in amended independent claim 1. As noted above, Brunet only teaches that a junction may be created from a wellbore casing below the surface of the earth from a single platform location. Moreover, Brunet discloses a method for locating bores that have already been drilled and only mentions reducing the number of platforms as a benefit of horizontal drilling. Brunet does not disclose selecting a possible set of platform locations because the platform locations are predetermined in Brunet. Brunet also does not disclose reaching more targets with additional platforms or relocation platforms to reach more targets as recited in amended claim 1. Brunet only mentions reducing, not increasing, the number of platforms as a side benefit of horizontal/lateral drilling. (See Brunet CL2, L19-20). Thus claim 1 is allowable over Cullick in view of Brunet for at least this reason also.

The Office Action also acknowledges that Cullick does not expressly disclose validating a set of possible platform locations to determine that each possible platform is in a geographic valid area by comparing each possible platform location against a set of exclusionary polygons but relies on Brunet to overcome this deficiency. Applicants respectfully submit that Brunet only contemplates locating bores that have already been drilled. Also, although Cullick validates cells, neither Cullick nor Brunet alone or in combination discloses validating a set of possible platform locations as recited in claim 1. (See Brunet CL2, L19-20). Thus, claim 1 is allowable over Cullick in view of Brunet for at least this reason as well.

Additionally, the Office Action acknowledges that Cullick does not disclose (4) determining a best set of platform locations from the set of possible platform locations by an iterative process which adds each of the possible platform locations to a list comprising the user-specified number of platforms and determining if the inclusion of each one of the possible

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platform locations in the list causes the total set of platforms to reach more targets or the same number of targets with less total distance thereby returning locations that are most desirable. However the Office Action relies on Brunet to overcome the deficiencies of Cullick. Applicants respectfully submit that Brunet only locates bores that are drilled and does not disclose determining a best set of platform locations for at least the same reasons as described above with respect to claim 1. Claim 1 recites determining if the inclusion of each one of the possible platform locations in the list causes the total set of platforms to reach more targets or the same number of targets with less total distance. Thus, claim 1 does not recite changes to platform locations whereas Brunet only mentions reducing the number of platforms as a benefit of horizontal drilling. Thus, amended claim 1 is allowable over Cullick or Brunet alone or in combination.

Still further, the Office Action acknowledges that Cullick does not expressly disclose (5) optimizing each platform location in the best set of platform locations by an iterative process which determines whether an improvement is achieved by moving each of the platform locations within a fraction of a platform reach in eight compass directions around a current selected best platform location but relies on admitted prior art to overcome the shortcomings of Cullick. Applicants respectfully submit that page 2, Para 004 of the specification only mentions moving a surface location of a single base case platform in four (4) compass directions not moving each of the platform locations within a fraction of a platform reach in eight compass directions around a current selected best platform location. (See specification Page 2, Para 004). Thus, claim 1 is allowable over Cullick in view of admitted prior art at least for this reason also.

As per claim 7, amended claim 7 is allowable over Cullick, in view of Brunet, Smitherman, and/or admitted prior art at least for the reasons stated above with respect to amended claim 1.

Dependent Claims

Dependent Claims 5, 6, 11 and 12 are also allowable at least for the reasons described above regarding independent Claims 1 and 7 and by virtue of their respective dependencies upon

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independent Claims 1 or 7. Accordingly, Applicants respectfully request withdrawal of this rejection of dependent Claims 5, 6, 11 and 12.

Conclusion

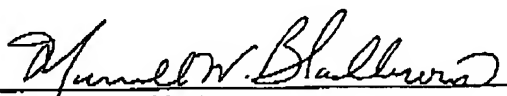
In view of the foregoing amendments and remarks, this application is now believed to be in a condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is invited to call directly Applicants' attorney at the number listed below.

If any additional fees are required for the timely consideration of this application, please charge Deposit Account Number 13-2725.

Respectfully submitted,

MERCHANT & GOULD

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